Work Grde				10015								ens, erem	Page 1
Revision ID:	D4065-041 Duct Assemb	PRELIM	MARY	35ULAccept						Setup S			
Start Date: Required Date: Reference:	3/23/10 3/30/10	Start Qty: 2 Req'd Qty: 2				Cust Item Customer:	D:				Stop		118 12 12 188 188 188 188 188 188 188 188 188 188 188 188 188 188 188 188
Approvals:	Process Pla	an:	Date:				ate:		1		Start Stop	/ (BB)((B) BB	
Sequence ID/ Work Center ID Draw Nbr		Operation Description		Set U Run I		Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty		eject umber	Insp. Stamp
100				0.00									
HandThermo Hand Finishing Therm	noforming	Memo Pick k (D406 (D456	Lit 5-1)	0.00				,	لقًا	W	l S	10/04	08
Hand Thermo	oforming.	Memo		0.00				(x \$	D.		0/04	208.
The state of the s	olonimig	2- Sear thickne	mating edges wit ess of 0.020"	D4065-3 to assembly fixture D EZ250150 Adhesive along pe from new sealed edges	T9598 Primeter with a mi	numum						<i>l</i> '	
120		QC2- Inspect parts	off machine FAI/I	FAIB 0.00				,	6	•		,	1
QC Quality Control		Memo		0.00				Ę	(E)	DR		0/04	68

Dart .	Aeros	pace	Ltd
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w/o: 5	7113	WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
reforter	િછ	CHANGE ROUTINGS FOR D4065-041 To include. production routings for D4065-1 = D4065-3 and. add steps For material drying. (See Attached.)	ih	10/04/07.			Sidonlia

Part No: D4065-041 PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
Resolution:	Disposition:	QA: N/C Closed:	Date:

NCR:			WORK ORDER NON-CONFORMANCE (NCR)										
	DATE STED Description of NC			Corrective Action Section B	· · · · · · · · · · · · · · · · · · ·	Verification	Annaval	Anneous					
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspecto					
					3								

Page 2

Item ID:

D4065-041

Accept

Setup Start

Stop



Revision ID: Item Name:

Duct Assembly

Required Date: 3/30/10

March 23, 2010 7:47:09 AM

Start Date:

3/23/10

Start Qty: 2.00

Req'd Qty: 2.00

Cust Item ID:

Customer:

Reference:

Process Plan: _____ Date: ____ Tooling: Approvals:

Date:

Run Start

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

130

Operation Description

QC5- Inspect part completeness to step on W/O

Set Up/

Run Hours 0.00

Draw Number

Draw Plan Rev. Code

Accept Qty

Reject Qty

Reject Number Stamp

Quality Control

to Reloan Rev A' Day.

140

Packaging

Packaging

Identify as per dwg & Stock Location:

Memo

SHIP 2 RAGE

Memo ONE FRIC 0.00

0.00

150

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

10/04/16 (3) Wowlle

POSITIVE RECALL

EFFECTIVE (D-) 3-23 AUTH

ELEASED (O. OY. 16 DATE

Quality Control

Dart Aerospace Ltd

				and the second s					
W/O:			WC	RK ORDER CHANG	ES				
DATE	STEP	PRO	CEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
								·	
Part No		PAR #:							
	·R	esolution:	Dispositio	n:	_ QA: N/C CI	osed:		Date: _	
NCR:		V	VORK ORDI	ER NON-CONFORMA	NCE (NCF	()			
DATE	CTED	Description of NC		Corrective Action Section		Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Section		Chief Eng	QC Inspector
							- 1 - 1		

Picklist Print

March 23, 2010 7:47:08 AM

Work Order ID: 57113

Parent Item:

D4065-041

Parent Item Name: Duct Assembly

Comments: IPP Rev:A New Issue 10/03/16 Rev A DL verified by:DD **Start Date: 3/23/10**

Required Date: 3/30/10

Component Item ID/			A DL	verified by:D	D			;	Start Qty: 2.00		Required Qty: 2.	
Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	(A) TO D	Qty Issued	Date	Status
D4065-1		Manufactured	No			100	Each	0.0000	2.0000		Issued	· · · · · · · · ·
Fwd Duct D4065-3	W 1021	Manufactured	No			100	57114 Each	0.0000	2.0000		Wh cofo	4/08
Aft Duct EZ250150	11 (11)	Donahara	N/			w	957115		W S) 	Dh rofon	00
Adhesive, 3M Scotch Weld		Purchased	No		•	110	Each	0.0000	2.0000	·	H what	/

M 113830

Dart Aerospace Ltd	Dart	Aer	osp	ace	Ltd
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W/O:			WO	RK ORDER CHA	ANGES					
DATE	STEP	PRO	OCEDURE CHAN			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
<u> </u>										
Part No	:	PAR #:	Fault Categ	jory:	NC	R: Yes	No DQA	\:	Date:	
	Re	esolution:	Disposition	ı:	QA	N/C CI	osed:		Date:	
NCR:			WORK ORDE	R NON-CONFO	RMANCE	(NCR)			
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Action Descript Chief Eng	Section B	Sign & Date	Verific Section		Approval Chief Eng	Approval QC Inspector
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DART AEROS	PACE LTD			W	ork Order:	57113
Description:	Duct ASSE	TURIY	<u> </u>		Operat Name to a second	
Inspection Dura				†—— <u>-</u>	Part Number:	D4065-04
mapection Dwg:	04065-04/ Rev:	_ <i>H</i>				Page 1 of 1
	X	ARTICLE INS First Article THERMOFOR	e	Prototy		
Description			Accept	Reject	Method of	Comments
Inside Radii less ti	han		 	 	Inspection	
Shape Definition			V			
Texture Retention				 		
Material Imperfecti scratching	ons such as bumps	, cracks, voids,				
Measured by:	Dhy	TRIMMING	SECTIO)N	Date:	10/04/06
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
5,5"	7-0.100	5.51				
7,7"	1,0,100		N			
10.00	Ref.	10.125 10				
5.75"	7-0,030	5,75 1	~			
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0.050"	Min,	0.051"				
		 				
		 				
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Mosson						
Measured by					Date:	10/04/12
Audited by					Date:	10/04/12
ototype Approva	l:				Date:	<u> </u>
	ange				Revised b	y Approved
Ne	w Issue				1/6 A 12 G C T	D9VOIUUM Ku

DART AEROSPACE LTD		
DANT ALNOGRACE LID	Work Order: 57//3	,
	11011 Glaci. J 7//_)
Description: Duck Assembly		}
every transport	Part Number: 04065~	811
Inone of its Experience		~/
Inspection Dwg: D4065 Rev: A		
	Page	1 of 1

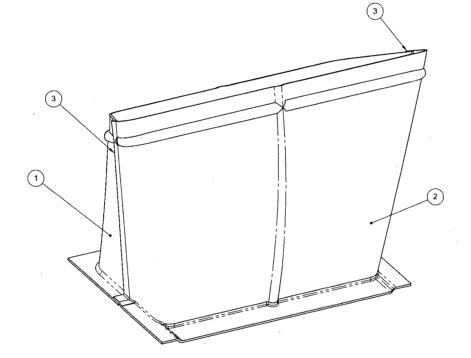
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Date:	10/04/16		2/04/16.		Da	
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	lew Issue		(Revised	by Approved

Dart Aerospace Ltd

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ITEM	QTY -041	P/N	DESCRIPTION
	X	D4065-041	DUCT ASSEMBLY
1	1	D4065-1	FWD DUCT
2	1	D4065-3	AFT DUCT
3	A/R	EZ250150	ADHESIVE, 3M SCOTCH WELD



D4065-041 DUCT ASSEMBLY

PRELIMINARY ISSUE

10.03.05

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4065-041" USING VIBRATING STYLUS
7) WEIGHT: 0.68 lbs
8) SEAL MATING EDGES WITH EZ250150 ADHESIVE ALONG MATING PERIMETER WITH MINIMUM THICKNESS OF 0.020"

PA1 NEW ISSUE 10.03.05 REV. DESCRIPTION BY DATE DESIGN RF DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWN RF CHECKED DRAWING NO. REV. PA1 MFG. APPR. D4065 SHEET 1 OF 4 APPROVED TITLE 212S DETAIL PARTS

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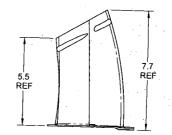
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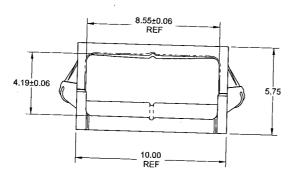
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D4065-041 DUCT ASSEMBLY

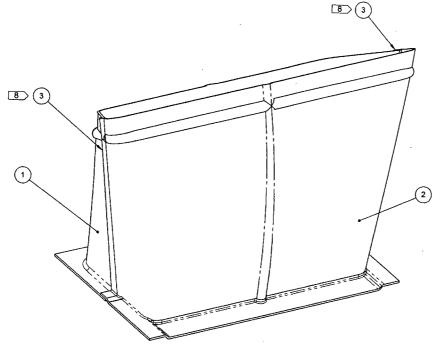
PRELIMINARY ISSUE

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Dart Aerospace Ltd

										
W/O:			V	VORK ORDER	CHANGES					
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			PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr PAR #: Fault Category: NCR: Yes No DQA: Date: Disposition: QA: N/C Closed: Date: WORK ORDER NON-CONFORMANCE (NCR) Description of NC							
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QTY -041 ITEM P/N DESCRIPTION D4065-041 DUCT ASSEMBLY D4065-1 FWD DUCT 2 1 D4065-3 AFT DUCT 3 A/R EZ250150 ADHESIVE, 3M SCOTCH WELD



REFERENCE ONLY

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A NEW ISSUE

3

D4065-041 DUCT ASSEMBLY

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4065-041" USING VIBRATING STYLUS
7) WEIGHT: 0.68 lbs
8) SEAL MATING EDGES WITH EZ250150 ADHESIVE ALONG MATING PERIMETER WITH MINIMUM THICKNESS OF 0.020"

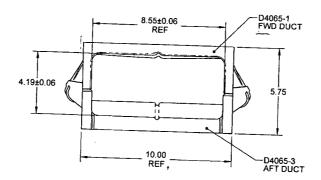
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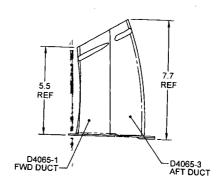
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-D4065-3 AFT DUCT -D4065-1 FWD DUCT







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Routing Print

Monday, April 12, 2010 2:44:09 PM

	Routing Seq ID/ Description/Memo	Work Center ID	Tool Kit/Tape	Std Process ID/ Description	Yield %	Queue Time	Setup	Machine	Labor	Move	Page 1 of Var. Outp
1	: D4065-041	Item !	Name: Duct Assembly				Time	Time	Time	Time	Outpl. L
Ro	outing Type: Production		- ,					•			
	100	Thermoform									
	HAND FINISHING				100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
	THERMOFORMING					0.0000	0.0000	0.0000	0.0000	0.0000	0.000
	Cut Blanks								0.0000	0.0000	
			To	tal for Routing Seque	ence (100) .	0.0000					
i	105	HandThermo		godu	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
					100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
1	Dry Sheet as per QSI022	2 Polycarbonate				0.0000	0.0000	0.0000	0.0000	0.0000	
	Тетр:						i				
į							4 P				
	Time IN:						1				
	Time OUT:						•				
	110	Thermoform	100	al for Routing Seque		0.0000	0.0000	0.0000	0.0000	0.0000	0.000
	THERMOFORMING				100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	MACHINE					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Thermoform D4065-1 an as per DT9581 and Dwg.	nd D4065-3 D4065 and Folio FTA 0	71								 .
	Dwg. Rev.										
į	Folio Rev.	- - -									
	120		Tota	al for Routing Sequen	ice 1101 :	0.0000	0.0000				
	120	QC		QC2	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				QC2- Inspect parts	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				off machine FAI/FAIB			0.0000	0.0000	0.0000	0.0000	
	130	Thermoform	Tota	l for Routing Sequen	ce [120] :	0.0000	0.0000	0.0000	0.0000		
	HAND FINISHING	THE INDIVIDIA			100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	THERMOFORMING					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		1065-3 parts for Assembly	/					0.0000	0.0000	0.0000	
	and De Turid De		•								
			Tota	l for Routing Sequen	ce [130] :	0.0000	0.0000	0.0000	0.0000		

Monday, April 12, 2010 2:44:09 PM

Routing Seq ID/ Description/Memo	Work Center ID	Tool Kit/Tape	Std Process ID/ Description	Yield %	Queue Time	Setup Time	Machine Time	Labor	Move	Var. Out
140	HandThermo			100.00%	0.0000			Time	Time	Outpl. L
HAND FINISHING THERMORORMING				100.0070	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
	with scotchbrite pad, wipe w	and the second			0.0000	0.0000	0.0000	0.0000	0.0000	
			allow to dry.							
2-Clamp D4065-1 and	D4065-3 to assembly fixtu	re DT9508								
3-Seal mating edges w	ith EZ Adhesive along perio	meter with a minimum	thickness of 0 020"							
	e from newly sealed edges		0.020							
150	00	Т	otal for Routing Seque	nce [140] :	0.0000	0.0000	0.0000	0.0000	0.0000	
130	QC		QC2	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
			QC2- Inspect parts	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
			off machine FAI/FAIB				0.0000	0.0000	0.0000	
160	QC	To	otal for Routing Seque	nce [150] :	0.0000	0.0000	0.0000	0.0000	0.0000	
	QC .		QC5	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
			QC5- Inspect part	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
		•	completeness to step on W/O					313000	0.0000	
170	Packaging	To	tal for Routing Seque	nce [160] :	0.0000	0.0000	0.0000	0.0000	0.0000	
Packaging	rackaging		Packaging3	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
<i>C G</i>			Identify as per dwg	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
			& Stock Location:					0.0000	0.0000	
180	QC	To	tal for Routing Sequer	ice [170] :	0.0000	0.0000	0.0000	0.0000	0.0000	
	QC		QC21	100.00%	0.0000	0.0000	0.0000	0.0000		0.000
			QC21- Final	100.00%	0.0000	0.0000	0.0000	0.0000	0.0000 0.0000	0.000
			Inspection - Work Order Release						0.0000	
		Tot	tal for Routing Sequen	ce [180] :	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
	Total fo	or Alternate Route [P	roduction] of Item [D4	1065-041 :	0.0000	0.0000	0.0000			0.000
			· · ·	- 1	3,000	4.0000	0.0000	0.0000	0.0000	0.0000